COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE
FIRST SET OF INFORMATION REQUESTS FROM THE D.T.E.
D.T.E. 03-79

Date: October 17, 2003

Witness Responsible: Francisco C. DaFonte

DTE 1-1: Please refer to page 4, section 13, of the Petition for Approval.

a. Please explain in detail the "historically weak pressure point in the Lawrence distribution System."
b. Has this weak pressure been a problem in the past? If so, what steps were taken in the past by Bay State to correct this problem?
c. How will the approval of this contract improve this historically weak pressure point in the Lawrence distribution System?

RESPONSE:

1a. The proposed Tennessee meter station will provide a second high pressure feed to a section of the Company's distribution system in Andover, which is located the furthest from the existing Oak Street meter station serving the Lawrence division. In addition, the Andover system is one of the furthest systems from the Company's LNG and propane peaking facilities. Being so far removed from the existing supply points reduces the amount of natural gas that can flow into the 99 psi system in and ultimately results in lower pressures required to serve existing and new customers.

1b. The 99 psi system in Andover has dropped below 40 psi in the past and is very much dependent on the Tennessee inlet pressure at the Oak Street meter station. Moreover, the Company has projected that this pressure could fall as low as 19 psi over the next few years based on system flow analysis performed using the SynerGEE Gas model .

The company has taken steps over the last 8 years to improve pressures in and around the Andover system. From 1995 to 1998, Bay State uprated the intermediate system, raising the operating pressure from 60 psi to 99 psi. Additionally, the company has installed approximately 3 miles of 12" coated steel main coming from the existing Oak Street meter station, to help bolster the pressures at the far end of the system. Also, the existing gate station has been updated with an ultrasonic meter, which reduces the pressure restriction through the meter station.

1c. With the addition of a new meter station from Tennessee, the Andover and Greater Lawrence system will benefit from the added volume and pressure connected directly to the 99psi system and will no longer be reliant solely on pressure and volume from the existing Tennessee meter

station. With the addition of the new meter station, the SynerGEE Model analysis indicates that pressures on the 99 psi system would remain above 60 psi even under design day conditions. Moreover, the new meter station provides an added measure of safety and reliability for other parts of the Lawrence distribution system in the event that a supply disruption or regulator failure should occur at the existing Oak Street meter station.